

Leveraging Digital Content: How Institutions in Balboa Park are Balancing Accessibility
and Monetizing Their Digitized Collections

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Abstract

Museums have taken many different approaches in increasing revenue, including capitalizing on their digital assets. This paper analyzes how nine organizations in the Balboa Park museum complex in San Diego, California have used their digital assets to generate revenue. For each organization discussed as a case study, its revenue models, strategies, strengths and weaknesses, and evaluation processes to determine the model's effectiveness are examined. In addition, each organization's philosophy, mission, and culture are considered in terms of their impact on the institution's strategies. As a result of this analysis, conclusions are drawn about the relative benefits and challenges of using digital assets to generate revenue, and recommendations are made for developing written business plans and incorporating evaluation techniques to better inform revenue-generating practices.

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Introduction

The tides are turning; more institutions are diving head first into digital programs, and revenue-generating ventures. Yet many do so with little to no established plans or business models for what these ventures should look like and what they will accomplish. Even fewer institutions have developed distinct digital strategies and policies or integrated them into their collections management and operations policies. These strategies and policies include detailed plans on making collections more accessible and utilizing digital content to create new revenue streams. Digitization and digital preservation activities are often an afterthought or are considered low priority, so the ambition to generate revenue from digital content is contemplated far less, as institutions battle with ever-tightening budgets and their day to day responsibilities. However, a recent study conducted by Axiell and Museums and the Web shows promise that museums are getting on track and using their digital content in more innovative ways. Forty percent of the study's respondents stated that they have a digital strategy integrated into their institutional strategy. Twenty-five percent of the respondents have a digital strategy that is distinct and related to their institutional strategy, and thirty-seven percent of the respondents have a digital strategy that is in development (Axiell and Museums and the Web, 2017, pg.1). This scenario is familiar for institutions of the world-renowned Balboa Park, in San Diego, California. Only two out of six institutions interviewed have fully implemented a digital strategy. Acting as a microcosm, Balboa Park institutions can offer insight into how cultural institutions in the United States are leveraging their digital content to create new revenue streams. Some institutions in Balboa Park have found their niche by establishing e-commerce projects catered to their institution's needs while others are still striving to move deeper into the digital world with active

digitization projects. Exploring how these institutions are generating revenue with their digital content can encourage fellow park institutions, as well as institutions around the United States better understand how they can implement or improve their digital projects and programs; learn how to tap into direct and indirect revenue streams from the digital content they produce; and be more proactive in developing and launching digital policies, plans, and initiatives, so that they may be able to create new revenue streams as well. Additionally, this research can help fill a significant gap in literature on Balboa Park's institutions.

The following analysis addresses the questions: How are Balboa Park institutions using their digital content to create new revenue streams? What are the driving forces for these institutions to implement these revenue models? What are the benefits and challenges these institutions encountered? Are these institutions evaluating their programs, and if so, how are they defining their success? If not, why are they not evaluating them?

Research Design

The research for this paper was conducted utilizing several research methods; historical research, case studies, and survey research. The historical research is comprised of published and unpublished sources including: The Balboa Park Online Collaborative's collections inventory survey and research report, conference presentations that provided details on specific Balboa Park digital projects like the Balboa Park Commons and Lost in Balboa Park, articles on research conducted on other institutions using digital content to generate revenue, and the current state of revenue generation using digital content in the United States. The case studies include eight major institutions in Balboa Park, and the Balboa Park Online Collaborative's Lost in Balboa Park and Balboa Park Commons projects. The institutions include: the San Diego History Center, the San Diego Natural History Museum, the San Diego Air & Space Museum, Mingei

International Museum, the Museum of Photographic Arts, The San Diego Museum of Art, the San Diego Museum of Man, and the Timken Museum of Art. Each institution, with exception of the San Diego Natural History Museum, the San Diego Museum of Man, and Timken Museum of Art, were analyzed in terms of its revenue model, challenges and benefits of those revenue models, trends driving the institution to develop that specific model, and how they are evaluating them.

The San Diego Natural History Museum's attempt to develop a revenue generating model was not fully realized. For this reason, the museum was analyzed by the revenue and business models that were originally proposed, and the reasons why it was never completed. In researching the case studies, survey research was utilized by conducting open-ended interviews with staff members at each institution. Interviews were conducted in person or by phone. Follow-up questions were also sent out and answered through e-mail or by phone. Each institution's mission, website, and collections accessibility were also reviewed. The Museum of Man and Timken Museum of Art did not participate in interviews. For this reason, analysis of their revenue generating models could only be completed by examining the museum's mission, access to their digitized collections, and process by which patrons can request image licensing and reproductions through the museum's website.

Background

To understand how Balboa Park institutions fit into the general digitization and revenue generation landscape, it is important to first consider the current digitization and revenue generation environment in the United States. As is frequently observed, it is thanks to grants that cultural institutions have the ability to digitize their collections and make them accessible through their websites. Based on AAM's 2016 digitization survey results, it is estimated that

grants and fundraising account for around 40.94% of a U.S. institution's budget for digitization (Primary Research Group, 16, pg. 23). While this method of funding digital projects has been advantageous for some institutions, others have capitalized on these grants by devoting more funding towards digitization projects. Digital content born from these projects then can be used to increase revenue. New digitized collections have also paved way for institutions to curate digital content and share it with the public in a myriad of ways. Some of this curated content comes in the form of online exhibitions, and shared images with aggregators like Europeana, the Digital Library of America, JSTOR, and ARTSTOR for greater dissemination. Many institutions have also looked to social media platforms like Facebook, Twitter, and Flickr to increase engagement and accessibility. While engagement and accessibility has been the focus for many institutions, many are also seeking new revenue opportunities. Institutions are now sharing their digitized images and outsourcing licensing and reproduction with third party companies like Art Resource and Bridgeman.

Results from a 2017 Axiell and Museums and the Web survey show that 49% of respondents are investing in digitizing their collections, and 86% of respondents have some portion, if not all, of their collection available online (Axiell and Museums and the Web, 2017, pg. 3). Furthermore, AAM's 2016 survey of Library and Museum digitization projects estimates that the average annual budget for digitization projects for the institutions surveyed is around \$51,972.41 (Primary Research Group, 2016, pg. 22). This survey concluded that of the institutions who responded, an average 54.42% of the digitization budget comes from the library or museum's budget (Primary Research Group, 2016, pgs. 50-51). Institutions in the United States were found to budget for digitization at a notably higher average of 67.2%. As previously stated, it is also estimated that grants and fundraising account for an average 40.94% of a U.S

institution's budget for digitization (Primary Research Group, 2016, pg. 23). Moreover, the survey also found that an average 2.96% of an institution's digitization budget came from endowments.

As institutions make their digitized collections accessible to the public, they are seeing an increase in visitors to their websites and increases in sales of reproductions (Primary Research Group, 2016, pgs. 31-32). To meet the needs of increasing virtual visitors, as well as those who come through their doors, institutions are prioritizing digitization in pursuit of relevance and sustainability. Forty-nine percent of Axiell and Museums and the Web survey respondents are investing in digitizing their collections (Axiell and Museums and the Web, 2017, pg. 3). Cultural institutions are investing a significant amount of time and resources into the creation of their digital collections. With these investments, many cultural institutions are working to be more creative in how they support their digital programs and generate revenue. Creative efforts take the form of a variety of revenue models. From license and reproduction services to research and consulting services to building e-commerce functions into the museum's mobile application. Programs and revenue models vary from each institution as they have sought to develop programs and models that suit their institution's mission and individual needs. In creating their digital content, digital programs, and new levels of access, it is more important than ever to seek out and reflect successful revenue models.

Current State of Revenue Generation in Cultural Institutions

Digitization and digital assets are beginning to play a significant role in museums, their missions, and digital image services are becoming more integrated into the essential functions of a museum. An abundance of data can be found on the tailored digital projects and revenue models cultural institutions are cultivating. However, some of the results of the surveys reviewed

have provided varying data on how much institutions are participating, how much they are investing into these programs, and the amount of revenue generated. As the sample sizes for each of these surveys is small, this observation is to be expected. Reviewing this data helps provide a broader picture of the current state of digital projects, and revenue generation in cultural institutions.

According to a 2014 digitization study conducted by the American Alliance of Museums (AAM), 21% of the organizations sampled license portions of their digital collections. AAM's 2016 Survey of Library and Museum Digitization Projects found that of the 21 museums that responded, 13 said they do not charge for the licensing, renting or selling of items from their digital collection. The rest of the respondents accrued an annual revenue in a range of \$300-\$60,000. When AAM's survey respondents were asked if digitization of any of their collections led to higher sales of reproductions and items related to the collections only 21.95% of U.S. institutions said yes (Primary Research Group, 2016, pg. 31).

A 2017 survey of 125 institutions conducted by Axiell and Museums and the Web found 47% of respondents have an e-commerce site for their museum, 3% have an e-commerce site that is connected to the objects that they have made available in their online collection, 29% do not have an e-commerce site, 8% do not know if they have one, and 13% stated that they did not have an e-commerce site, and that it is against the vision of their institution (Axiell and Museums and the Web, 2017, pg. 3). Meanwhile, survey results analyzed by Simon Tanner indicate that while image services are considered essential, they have not been really valued. Tanner argues that image services have not been provided proper resources, and necessary professional and business management (Tanner, pg. 1). Furthermore, this survey of 30 museums' (plus survey results from 100 other museums) imaging and rights services in Europe and the USA found that

museums engage in these rights and reproduction activities not for profit, but to further serve the public, educational use, promotion of the museum and its collections, and for commercial use and publishers (Tanner, pgs. 1-2). In a 2004 Mellon Foundation study, over 120 art museums were interviewed and their cost and policy models were examined. None of these museums claimed to have made significant profits against their overhead costs. The study found that of the museums surveyed, none of the museums that enforced their copyright ownership made a significant profit against their expenditures in the licensing and reproduction of their images (Smithsonian Emerging Leaders Development Program, 2016, pg. 5). Some larger institutions have found that incorporating marketing campaigns with their open access initiatives increased their brand licensing opportunities, and opened their institution to other possible revenue streams. In combining all of the data from the preceding surveys and studies, it presents a more comprehensive picture of cultural institutions' revenue-generating efforts. Similar to these surveys, Balboa Park institutions are also developing digital projects, and participating in revenue generation in varying degrees with mixed results.

Types of Revenue Models

To better understand the types of revenue models that institutions use, a guide to the best revenue models and funding sources for digital resources was developed by Nancy Maron working with Ithaka S + R, a research and consulting service, and JISC, a non-profit organization that supports digital solutions for United Kingdom education and research. This guide describes the pros and cons of each model, examples of each model, and case studies of institutions that use those models. These revenue models include: Advertising, Author or Contributor Pays, Consulting and Other Services, Corporate Sponsorship, Freemium Models, Host Institution Support, Membership Models, Licensing of Content and Software, and Purchase or Pay-Per-Use.

Not all of these revenue models are used by the institutions of Balboa Park. This analysis is restricted to the models used by at least one BP institution and includes: The Author (or Contributor) Pays, the Consulting and Other Services, and the Licensing of Content and Software. Deeper analysis of the types of revenue models promotes further understanding of how and why each of these revenue models are used by Balboa Park institutions. This analysis also furthers understanding of what these revenue models are, their strengths and weaknesses, and how they benefit the institution. For continued reading on all revenue models, the guide is accessible in the annotated bibliography in Appendix A.

The Author (or Contributor) Pays model shifts the costs of publication to the contributors. This model is a good fit for publishers in disciplines that do not receive enough funding for publication, and for publishers who are able to anticipate project costs and revenues, and then develop up-front author fees to recoup those projected costs and revenues. In Balboa Park institutions this may look like a researcher or publisher funding the digitization of items to be used in a publication. Several institutions interviewed mentioned the use of this model, but not on a consistent basis. This model requires successful marketing targeted towards scholars and researchers as they are often the main customer (Maron, 2014, pg. 29). The benefits of this model include built in coverage of the fluctuating expenses of production and materials, emphasized value of publishing, and the institution has more control of making content openly available and less risky. One disadvantage might be that costs are not as manageable for authors' work in the humanities as it is not typically funded through grants.

The Consulting and other Services model is the transfer of expertise and knowledge for a fee. This model may look like institutions charging fees for research services, or consulting for exhibitions. This model is a good fit for institutions who have teams and staff in leadership

positions with expert knowledge of specific industries and fields along with specialized equipment, and staff time able to be devoted to these services. Costs attributed to this model may include requiring additional staff and resources. The benefits to this model include consulting services facilitating projects in generating revenue by using their expertise, project missions being enhanced by offering these services, and gaining recognition and greater experience. The disadvantages that may be encountered include the efforts required to maintain a consulting business, the flow of projects may be unpredictable, and consulting practices may be too complicated to manage and make profitable (Maron, 2014, pg. 34).

The Licensing of Content and Software model allows an institution to license its content such as images, documents, and audio and visual recordings to another party. This model is a good fit for institutions who have unique content, technology, or software to offer, and projects that they cannot afford to build the infrastructure for. Costs attributed to this model may include contractual agreements that require time and knowledge, the capacity for business development needed in finding potential licensors, and editorial and curatorial skills needed to present content that would appeal to potential partners. The benefits of this model might include the expansion of the project's audience, new potential for projects moving into more sophisticated technology, allows non-profits to be able to continue to focus on their mission, and can help subsidize other areas of a project that allow for wider access. The disadvantages may involve the loss of control of content to some degree, disconnect in direct contact between the original creators of the content and the audience, and a need for a more sophisticated business model in order to understand this revenue model advantages and disadvantages (Maron, 2014, pgs. 59-63).

Museum Context: Introduction to Case Studies

In 2015, Balboa Park Online Collaborative (BPOC) conducted a collections management and digitization survey of 13 institutions in Balboa Park. In BPOC's survey, it was calculated that the park hosts over 700,000 collection objects (550,000 of these objects being archaeological and ethnographic artifacts); 7.7 million scientific specimens; 5.5 million historic photographs; 150,000 research volumes; 250,000 periodicals in subjects ranging from folk art to automotive training manuals and sports history; 120 historic documents, and 50,000 historical and performance costumes. This survey found that only 5% of all collection objects and archival materials had been digitized, let alone made available to the public. BPOC estimated that not even 1% of the digitized collections are available online (BPOC, 2015, pg. 1). Not only are these collection objects not accessible to the public; but there is missed opportunity for additional revenue generation.

The Balboa Park organizations to be analyzed in this paper are the Balboa Park Online Collaborative and its Balboa Park Commons and Lost in Balboa Park projects, the San Diego History Center (SDHC), the San Diego Air & Space Museum (SDASM), Mingie International Museum, the San Diego Natural History Museum (SDNHM), the Museum of Photographic Arts (MOPA), The San Diego Museum of Art (SDMA), the Museum of Man, and the Timken Museum of Art. The Balboa Park Online Collaborative case study examines the Balboa Park Commons and Lost in Balboa Park projects. A collaborative effort to consolidate the digitized collections of institutions in the park into a single digital assets management system. These images would have been used for various projects from image licensing and reproduction to creating thematic and engaging tours. The purpose of the tours was to encourage park visitors to purchase the park's Explorer Pass. With the Explorer Pass, visitors could fully explore all of the

tours, and have the ability to visit all of the institutions in the park in a more economical way. The San Diego History Center's case study explores how the Center is using its online image gallery for the sale of reproduction rights and licensing of high-resolution images, and high-quality print images. The San Diego Natural History Museum case study investigates the institution's incomplete image, film, music, and other media licensing services. Mingei International Museum case study presents how the institution is utilizing Art Resource, an online rights and permissions representative, for selling its art images. The San Diego Air & Space Museum case study details the institution's use of fees for photocopies, prints, and film duplications as well as commercial use of its images and films. The Museum of Photographic Arts case study will review MOPA's image licensing of two collections and challenges with copyright ownership. The San Diego Museum of Art case study will examine SDMA's use of a third-party vendor, Bridgeman Images, to license and reproduce its images. While interviews were not conducted for the Timken Museum of Art and the Museum of Man, their offerings of image licensing and reproduction on their websites will be analyzed.

Balboa Park Online Collaborative

Since 2010, Balboa Park Online Collaborative (BPOC) has been working with cultural institutions in Balboa Park to collaborate on their digitization projects and build a shared digital assets management system. This includes sharing digitization rigs, procedures, and a public web portal for their images. This public web portal has been named the Balboa Park Commons. The portal features over 30,000 digitized photographs and artifacts from seven cultural organizations in Balboa Park (IMLS, 2013). The funding for this project initially came from a two-year IMLS National Leadership Grant that was matched by BPOC's founder the Legler Benbough Foundation. The key goals for this project included "increasing the visibility of the museums'

content by providing the public with access to rare and unique collections from Balboa Park museums, designing a tool-set that meets the needs of San Diego educators and students, and attracting new and more diverse audiences by including social software tools that allow visitors to create their own stories and discover interesting and fun connections across the collections” (Museums and the Web, 2012). Some museum staff were also under the impression that the Balboa Park Commons would also be used for image licensing and reproduction services.

As part of the project’s final goal, the Lost in Balboa Park project was created (New Media Consortium & BPOC, 2016, pg. ii). Using Spotify as a model, the Lost in Balboa Park project would have allowed visitors to be able to participate and customize their own tours or “playlists” using images from the Balboa Park Commons. The idea was that the project would entice visitors to purchase the park’s Explorer Pass so that they would have access to all of the institutions and could complete their tours or “playlists”. The Balboa Park Explorer Pass gives visitors access to select institutions whenever they choose without having to pay admissions each time they enter. This is dependent on the type of Explorer Pass that the visitor purchases. There is single day, multi-day, and annual passes available. The revenue generated from the sales of the passes is distributed to each institution based on a calculation of the number of swipes of the pass at each institution, the value of the admission ticket at each institution, and minus \$5 per ticket for the Balboa Park Cultural Partnership and zoo (Nik Honeysett, Personal Communication, 2018).

BPOC has launched a few curated playlists since Balboa Park Commons went live, but progress has since stalled due to the project’s main financial contributor pulled its funding. Several reasons were given by both BPOC and participating institutions. BPOC’s CEO, Nik Honeysett, explained that the project’s main financier pulling its funding because participating

institutions were not willing to add their financial resources to the project. For the institutions interviewed, the factors of why some of them did not contribute financially to the Lost in Balboa Park project include: the lack of a written plan of what institutions were expected to contribute, and how the project would benefit them; an unclear and inconsistent understanding of what the actual project entailed, and general concern over how the digital assets would be managed and controlled. Some minor evaluation has been done on the Lost in Balboa Park project. This evaluation takes the form of reviewing Google Analytics results of the number of views each tour receives. With this evaluation, BPOC can determine what other types of tours it should develop. For example, the family tour received more views than the rest of the Lost in Balboa Park tours. This is valuable information because BPOC could create more related tours that could bring more visitors to the park. This unique collaborative endeavor in Balboa Park has remarkable potential that would greatly increase engagement and interest in how all of the museums and their collections connect with one another.

San Diego History Center

The San Diego History Center (SDHC) houses a collection of objects, photographs, and historical archival and library materials related to the San Diego region, and its indigenous peoples. Its mission is to “tell the diverse story of our region – past, present, and future – educate and enrich our community, preserve our history, and foster civic pride” (SDHC, About Us, 2018). SDHC’s collection includes a photography collection of over 2.5 million images, 15,000 objects, and a large collection of archival documents (BPOC, pg. 18). From BPOC’s 2015 survey, 20% of SDHC’s photographs have been digitized. Today, SDHC’s digitization activities are ongoing, and uses three levels of digitization creating master, access and thumbnail files according to federal guidelines. Since 1993, the History Center had been awarded a number of

grants for digitization projects. Utilizing both its digitized photographs and historical archival and library materials, SDHC has been able to create new revenue streams to help support its collections and fulfill its mission. The Center generates revenue through the licensing and reproduction of images on a variety of mediums, and research services.

The SDHC's Senior Photo Archivist, Chris Travers, and Document Archivist, Renato Rodriguez, provided more in-depth information on how the History Center generates revenue with its digital content. Prior to creating its online Photo Gallery, the History Center sold prints of its images through a third-party vendor. This vendor charged for hosting the images, displaying them on its website, completing transactions, and fulfilling each order. The History Center in return received a percentage of each sale (BPOC, pgs. 19-20). SDHC found this method to be successful for a few years until the vendor struggled and stopped paying the royalties it owed the institution. A majority of reproduction activities are now completed in-house. The History Center prints all images up to 16 x 20 in-house, and employs a third-party vendor for the printing of oversize prints. To streamline image reproduction requests and make its images more accessible to the public, the Center established its Photo Gallery on its website. This Photo Gallery is home to roughly 35,000 images. An estimated 1,000-2,000 images are added to the photo gallery each year. Additional images are available in scholarly articles on the Center's website. As a secondary function, the photo gallery can be used as a research tool, but it has limited metadata available for its images. Images for research are also accessible through the History Center's PastPerfect online portal. These images were set up specifically for research, and have much more metadata available. Some images of collections objects are also made available on the History Center's social media platforms. In terms of accessibility, the reference images in the store have minimal metadata attached to them, they are thumbnail size, and

watermarked. This prevents users from openly using the images, but still allows for some access to them. Images in the Journal of San Diego History, and two other collections are not watermarked or have subtler watermarking. The History Center holds tight intellectual control over its digital content by making its images available in this way.

When an image request is made, clients are asked to fill out a contract stating what clients intend on using the images for. Permissions for publication are only granted for a one-time, non-exclusive use. Access fees are per reproduction in addition to the production charge.

Reproductions must be credited to the San Diego History Center, and applicants agree to share a copy of the work that contains the reproduction. (SDHC, Reproduction Rights, 2018). Access fees are determined by a fee structure that is dependent on both the use of the image, and whether the requesting organization is a non-profit or for-profit. The fees for non-profits are half of the standard fee to make prices more affordable. In addition, the Center has not raised its fees in about 10 years, and currently has no intent to do so in the future. SDHC has found its fees to be in the middle of the licensing and reproduction market. This revenue model frequently brings in well over \$100,000 a year for the History Center. With sustained marketing, staff believe that this number could significantly increase. A large portion of the revenue generated from this model comes from sales to organizations for homes, banks, restaurants, etc. Images have also been used in feature length films and books.

The revenue generated from this model does not cover the cost of staff wages, and the care for the History Center's collections, but it is used to help support collections care. There is interest in creating an online store for products, but developing the web presence requires staff and time the History Center does not currently have. Staff realize the market potential with its collection, but the institution needs to invest in more marketing to accomplish this. While the

Center has seen high numbers of image sales over the years, it has also experienced declines in sales along-side falls in the economy. Around 2008, the Center saw its sales cut in half, and as the economy recovered those sales gradually increased. The History Center has dedicated funding from its budget for the materials and equipment used in its image licensing and reproduction services, and its licensing and reproduction fees have been developed to cover the costs of direct expenses such as materials and labor for digitizing and printing. The revenue generated from this service then feeds into the History Center's general revenue pot. The Center does not have a written business model or plan, but the creation of this service has taken shape from learned experiences, and research of what other institutions are doing in the image licensing and reproduction market.

As part of their many duties at SDHC, the Photo Archivist, Document Archivist, and Digital Imaging Technician are responsible for reproductions. The Center also benefits from volunteers and interns to create reference images, transcribe, and input metadata for documents and photographs. Staff have voiced interest and goals for the future to not only improve the History Center's website, but also implement new strategies in marketing to increase revenue. The process for image requests has become more streamlined, but digitization efforts at the SDHC are not systematic. Digitization projects are typically project or grant based, but the funds from image licensing and reproduction also help to support digitization projects. Once digitized, images are then immediately uploaded to the Center's photo gallery and made available to the public. Not all of these images are intended for selling, some are intended for research. SDHC staff have stated that the Center digitizes for the intent of preserving cultural heritage, not for the sole intent of turning a profit. In alignment with this intention, the Center also focuses grant

awards for digitizing collections that would not necessarily generate revenue, but are for the good of the collection.

Evaluation of the History Center's image licensing and reproduction services was first conducted by tracking the number of images uploaded every year. Then it evaluated its progress by the number of sales every year. These figures gave staff a sense of the number of new orders, how many people were spending money, and how many new people were looking at the website. The Center's website is hosted by WordPress, and WordPress keeps track of this data giving staff another tool for evaluation. The museum's website has recently been redesigned, so it would be difficult to produce accurate numbers on its progress if it were currently evaluating. Also of note, no evaluations have been done to determine if virtual visitor numbers have had any impact on physical visitor numbers. While the institution is not actively evaluating its services, staff have noted some challenges and benefits encountered along the way. A significant challenge staff have encountered is server space, but long-term storage options are currently being evaluated. High resolution image files created from digitizing take up a significant amount of space. An important non-monetary benefit the History Center has seen from its image licensing and reproduction services is an increase in its profile. This includes images used to decorate numerous businesses, films, books, and magazines and images used for American Masters, an Emmy-winning television show. This not only raises the institution's profile, but also helps a wider audience learn about San Diego and its history (Chris Travers, Personal Communication, 01/30/18).

The second revenue model the History Center uses is research or consulting services. These services take the forms of on-site reference services, basic reference requests by e-mail, records requests by e-mail, one-on-one appointments, and remote research. This is a relatively

new service that the History Center started in the Spring of 2017. On-Site reference services are donation based as part of the institution's Give Forward program, but the suggested donation is \$10. There are fees associated with group visits, and copies, and reproductions (SDHC Give Forward, 2018). Basic reference requests can be made by e-mail without being charged a fee. These requests are typically questions that can be quickly and easily answered by e-mail. The records request allows for request searches of specific records in collections listed on the institution's website. Each request includes a search of up to five names in up to three databases. Copies of the search results can be ordered for 50 cents per page plus an administration fee. One-on-one appointments provide guided access to the document archives, the photograph collection, and the object collection. Appointments can be made by filling out a request form and e-mailing it to the Collections department. Appointment fees vary depending on whether visitors are an SDHC member or not. If the visitor is a member then the fee is \$25 per hour, and if a non-member then the fee is \$35 per hour. Remote research services are completed by staff on the inquirer's behalf. This research is limited to one individual, topic or question, and it is charged at an hourly rate. For SDHC members the fee is \$35 per hour, and for non-members the fee is \$45 per hour. There is a one-hour minimum, and additional time is charged in half-hour increments after the first hour. Upon completion a summarized written response of the findings is sent by e-mail or fax. The service also includes three fax scan copies of photographs. Document copies and additional photographs are made to order.

Some significant challenges that have been found in providing this service include: time management due to research requests that require more digging and time, copyright restrictions on photocopying whole books, and the number of requests that come in simultaneously. There is no dedicated budget for this service, nor is there a written business model. The History Center's

staff are in the process of writing grants to digitize more of its collection which could then in turn potentially bring in more revenue. As this is a new service it has not been evaluated to determine revenue generated and expenses incurred. As previously mentioned, the redesign of institution's website has made evaluation challenging for this model as well. The Document Archivist's goal is to look at the services' revenue reports after the first year, and then evaluate its progress. The non-monetary benefits of this service also include raising the institution's profile, and changing the culture within the institution.

San Diego Natural History Museum (SDNHM)

The San Diego Natural History Museum is home to specimens, photographs, slides, manuscripts, historical documents, field notes, institutional newsletters and publications, maps, art works, and films that not only cover millions of years of natural change, but how these changes have taken place in Southern and Baja, California (BPOC, 2015, pg. 10). The museum's mission is "to serve as a center for the scientific study of biological diversity and evolution; to provide dynamic leadership in natural history and environmental education through exhibits, publications, and educational programs, striving to make this outreach relevant to all the people of the San Diego region; and to foster cooperative efforts in natural history research and education throughout our region" (San Diego Natural History Museum, Mission, 2018). SDNHM's collections contain around 7.7 million specimens, 50,000 photographs, slides, manuscripts, historical documents, field notes, institutional newsletters and publications, journals, maps, art works, and film. SDNHM's research library contains around 20,000 titles in 56,000 volumes, and receives 700 serial titles from subscriptions and exchanges. As of BPOC's 2015 survey, only 10% of the museum's digital assets were available to the public through its website, the Balboa Park Commons, in-gallery kiosks, and social media (BPOC, 2015, pg. 10).

The revenue models that had been intended to be implemented were the licensing and reproduction of high resolution images and digitization services. SDNHM's former Media Acquisitions Coordinator was tasked with developing a business plan for digitizing the museum's assets, creating a website, adding the digitized assets to the website, and managing the website once it went live. The Media Acquisitions Coordinator would also work with the marketing department to promote the website, and market on social media platforms. The business plan was broken down into a detailed description of the business model, parties involved and their responsibilities, objectives, strategy, and implementation, pricing, projected expenses, start-up costs, and revenue, and what the plan needed in order to succeed. This business plan is an element that has consistently been observed to be missing from revenue generating programs while completing the case studies. The project never came to fruition despite a carefully laid out business plan. A couple different reasons by were given by former and current staff for the closing of this project. The common theme among these reasons was a breakdown in communication and misunderstandings between staff and leadership on the expectations of this project. This breakdown in communication and misunderstandings were what led to the dissolution of the project.

Whatever the reasons, SDNHM's website still states that the museum offers reproductions services as part of its exhibition and consulting services even though the museum is not actively participating in licensing and reproductions at this time. As the museum's image licensing and reproduction project never got off the ground, it is difficult to ascertain what benefits the it would have experienced, but it is for certain that the museum did experience some challenges in the process of developing this project. One challenge that was noted in an interview was a resistance to digitization projects or its low prioritization within the museum. This

challenge is relatively common for institutions, and it could arguably be the most common hurdle institutions face.

Mingei International Museum

Mingei International Museum “collects, conserves and exhibits arts of daily use – by anonymous craftsmen of ancient times, from traditional cultures of past and present and by historical and contemporary designers” (Mingei, History of Mingei, 2018). Mingei’s collection contains over 25,000 objects from 141 countries, but most of the objects are from Japan and India. The museum’s objects collection contains a variety of objects ranging from ceramics, hand blown glass, jewelry, textiles, paintings, painted books, and more. 20% of these objects have been professionally digitized according to BPOC’s 2015 survey. These objects are accessible on the museum’s website, selected collections are on the Balboa Park Commons, Pinterest, and Instagram. Mingei has an extensive bead collection that is estimated to have 40,000 beads, if counted individually, but represents about 3,000 actual object records. The museum has digitized and professionally photographed about 2,500 beads (BPOC, 2015, pg. 2-3). A little under 500 beads are digitized and photographed professionally each year. The completion of this project is dependent on funds provided by a private donor. The archives hold over 25,000 photographs, slides, historical documents, institutional publications, film, and more. These materials are actively being digitized at about a rate of 1,000-2,500 every year. The library holds over 12,500 books (as of 2018) and 5,000 journals. These are searchable through an online catalog on the museum’s website (BPOC, 2015, pgs. 2-3). Mingei’s mission is to “further the understanding of art of the people (Mingei) from all eras and cultures of the world. This art shares a direct simplicity, and reflects a joy in making, by hand, useful objects of the timeless beauty that are satisfying to the human spirit. The museum collects, conserves, and exhibits these arts of daily

life – by unknown craftsman of ancient times, from traditional cultures of past and present and by historical and contemporary designers” (Mingei, Mission, 2018).

Mingei’s Library, Archives, and Digitization Manager, Kristi Ehrig-Burgess, described how the museum generates revenue with its digital content using image licensing and reproduction. Mingei offers licensing and reproduction of its images through a third-party vendor called Art Resource. Art Resource is one of the world’s largest fine art stock photo archives with more than 1,000,000 fine art images available for licensing (Art Resource, 2018). Mingei International began contributing to Art Resource back in 2005 and 2006. There are about 5,000 images available for purchase, and the museum has not added to this number since its initial contribution. Mingei receives about 50% of Art Resource’s sales. Revenue from this model does not typically exceed \$600 a year. Image requests are often made from scholars and publishers, but the museum has also received image requests from the local Airport for an art installation. While images can be purchased through Art Resource, if the Mingei receives image requests for educational purposes, the museum will often reduce the rate, or give the image for free. This is also done in exchange for crediting the museum for the use of its images, and for a copy of the item that the image has been used in. The museum uses a contract for image requests made directly through them, but there are no other written procedures or business model for this revenue model.

In the Spring of 2017, Mingei launched Web Kiosk, an online portal making the images of its collections more accessible to the public. Web Kiosk has now made 25,000 object records available online with 60 percent of its images on view (this includes records images and professional photography). Since this launch, staff have noticed an increase in both image requests and page views. From launch to early 2018, the museum observed page views increase

from 13,000 to 18,000. However, no further evaluation has been conducted on whether virtual visitors have impacted physical visitors. Other non-monetary benefits the museum has seen includes exposure through image requests from other museums, further audience engagement, and publicity. Images have appeared in a number of scholarly publications, arts and crafts journals (Ornament Magazine), and a piece was recently featured on the Travel Channel. The museum has not faced any notable challenges in the use of this revenue model. Copyright has not been a challenge like it has been for some other institutions in the park. The professional photographers that the museum hires to photograph their collections are hired for contract work, and release the rights for their images to the museum. As a majority of the objects in the museum's collections have an unknown artist, thus copyright ownership of the object is also not a significant challenge for Mingei.

Monetizing its collections, and generating revenue from its images is currently not a focus for Mingei International. Mingei's mission and overall philosophy plays a significant role in how it is balancing accessibility and image licensing and reproduction. The museum's focus is in fulfilling its vision of the "art of the people." To that end, the museum has turned away image requests due to the client's interests not aligning with the museum's interests. While this model for revenue generation is not a focus for the museum at this time, there is interest in developing ways to more effectively leverage its collections to generate revenue. If the museum were to increase its contributions to Art Resource, and increase its marketing and awareness of this service it could potentially generate more revenue to help with the funding of its current digitization efforts. This increase in digitization would further support the museum's beliefs in the "art of the people" by making its collections more easily accessible to its community.

San Diego Air & Space Museum (SDASM)

The San Diego Air & Space Museum has a large collection of objects, archives, and research materials about aviation history, and the role San Diego has played in the history of aviation. SDASM currently holds around 50,000 objects with an average of 400 objects being added every year. An estimated 70% of the collection has been digitized, and less than 10% of the museum's digital images are available online as of BPOC's 2015 collections survey (BPOC, 2015, pg. 4). The museum's library and archives holds a significant number of photographs, manuscripts, historical documents, publications, films, and more. SDASM's photograph collection includes over 4 million images. Over 220 finding aids have been created for its special collections, and less than 10% of the archives has been digitized. The library and archives are actively digitizing over 10,000 items each year. Of its digital images, the museum has made over 190,000 available on Flickr. These images are stored on the museum's digital assets management system and then pushed to Flickr. SDASM's Flickr images have received over 125 million views (BPOC survey, 2015, pg. 4). The research library contains over 30,000 books and printed periodicals. Most of the books in the library are available through Internet Archive and other digital resources (BPOC survey, 2015, pg. 5). SDASM's mission is to "preserve significant artifacts of air and space history and technology; inspire excellence in science, technology, engineering, and mathematics; educate the public about the historical and social significance of air and space technology and engage its promise for the future; and celebrate aviation and space flight history and technology" (San Diego Air & Space Museum Overview, 2018).

The revenue models used by SDASM are the licensing and reproduction of images and research services. A list of fees charged for these services can be found on the museum's website. Research fees, listed first, introduce an hourly rate of \$35.00 for a research associate's time. This

request requires a 1-hour minimum. The first hour of research is free for photo research requests. When research exceeds the hour a fee of \$35.00 per hour is applied. Image licensing and reproduction services include fees for photocopies, print and film duplications, and commercial use of images and film. These fees are for one time use only. Reproduction rates are based on photocopy size (letter and legal), PDF scans of documents and large-scale aircraft drawings, TIFF or JPG files of digitized photographs, AVI, MOV, and MP4 files of film and moving image files, and MP3, WAV audio files. Usage fees depend on whether the organization is non-profit or for-profit, and if the image is used for educational or commercial purposes. Fees also vary depending on whether the image is used in a book, periodical, serial, newspaper, display or exhibition, film, video, tv program, electronic media, digital application, sales, advertising, marketing, or promotion. SDASM members also receive a 10% discount on reproduction and research services. The process for image requests requires customers to fill out a reproduction request form, and e-mail or mail it to the museum. Once the images and film are ready, staff e-mail a link to customers giving them direct access to the image or film. Images and film are sent to customers using WeTransfer.com.

SDASM does not have an established business model, but has written image licensing and reproduction into its digital preservation plan, and developed a comprehensive manual for its practices. The revenue generated from these models ranges from \$15,000-35,000 a year. A 2016 annual report indicated that staff answered 11,500 telephone, mail, and e-mail information requests, and had 65 onsite visitors for its services. SDASM's website has also been revamped in recent time, so evaluating how these services have impacted virtual visitor numbers has been difficult. The museum's social platforms, Flickr and YouTube, have analytical tools that it can use to help supplement its evaluations. SDASM's Digital Archivist, Alan Renga, estimates that

since putting its collections online, the museum has seen its website views increase up to 50%. Its analytics say web traffic increases by 10% each year, and its income from sales has increased as its online presence on platforms such as Flickr has grown. Evaluations have not been done to determine whether this increase in virtual visitors has translated into an increase in physical visitors. Other contributing factors like rotating exhibits make it difficult to determine exactly what increases web traffic. The biggest challenges the museum has faced in implementing this image service includes ensuring metadata transfers with the images, finding a balance in making photos and videos accessible, and whether to enforce SDASM's copyright ownership. The museum has experienced people harvesting its images and selling them on eBay, but it has not been a significant problem for the museum. The benefits seen from offering these services include an increase in exposure, revenue, and an increase in website traffic. This increase in revenue can be funneled back into digitization projects to increase its revenue opportunity. SDASM's Digital Archivist made a rather important observation that should also be considered a benefit to implementing such programs. The additional benefit has been the museum was awarded a number of grants for making its collections available and more accessible to the public. The funds from these grants have been more profitable than what the museum has been generating from image licensing and reproduction.

Museum of Photographic Arts (MOPA)

The Museum of Photographic Arts collections contain around 9,000 photographs spanning the history of photography. The collections contain several types of media such as gelatin silver prints, albumen, photogravure, and digital c-prints. MOPA's collection of digital assets contains approximately 10,000 images, podcasts, and recorded lectures and programs. MOPA's library holds an estimated 20,000 books related to the history of photography, and

annuals, auction catalogues, and archives (BPOC Revised Collections Report, 2015, pg. 20). Most of its collection was digitized by Balboa Park Online Collaborative (BPOC) from 2010-2011. This project was made possible from a grant BPOC received. Roughly 1,200 of MOPA's digital images are available on the Balboa Park Commons online portal. This portal, managed by BPOC, contains content both digitized by BPOC and contributions from individual Balboa Park institutions. In other cases of accessibility, MOPA offers curated online exhibitions on its website for its virtual visitors. The museum's mission is "to inspire, educate, and engage the broadest possible audience through the presentation, collection, and preservation of photography, film, and video" (MOPA Mission, 2018).

The revenue models that MOPA utilizes are the licensing and reproduction of images, and consultation services. MOPA can only monetize certain parts of its collection because it does not hold copyright ownership to all items in its collection. Collection items that the museum can reproduce are available for sale, or given to its donors. For items that fall under the public domain, the museum has made accessible on other websites such as Flickr. A system has not been set up through its website for purchasing these images. MOPA has made the licensing and reproduction and consulting services part of its 3-year strategic plan, but it does not have any immediate plans to develop and implement a systematic image service. When the museum is ready to develop and implement these services, staff intend to first develop a business plan and conduct a market analysis to understand how the museum can meet its audience's needs. The consulting services that the museum offers have taken the form of providing recommendations for exhibitions, and the creation of a photo interactive. These services are not considered a priority for the museum at this time. Differing philosophies and the culture within the museum has impacted the efforts put towards these services. Any funding that would have been put

towards making these services more accessible has been redirected. These services are not advertised on its website as being available, nor is there any indication of how visitors may inquire about image requests.

Little evaluation has been conducted on MOPA's services. Although tracking of how much revenue is generated has been completed. The revenue from the licensing and reproduction of images is estimated to be around a few hundred dollars. Since the museum recently redesigned its website in late 2017, it is also unable to evaluate if its online exhibitions have impacted virtual and physical visitors. MOPA has completed several grant-funded audience evaluations to get an idea of what its visitors would like to see. As MOPA sees engagement as a better source of revenue for them, this is where the museum's focus lies. According to MOPA's Director of Innovation, Joaquin Ortiz, the museum's evaluations revealed that its audience is looking more for curated content that is easily accessible to them. Its audience would also like to see more work by local photographers. This has helped guide staff in the development of its online exhibitions. Perhaps MOPA staff could use data from its social platforms such as Flickr to additionally help inform its decisions on what images the public would like to see. In an age where the public is inundated with images everywhere, MOPA leadership does not see a short-term benefit to making every single one of its images accessible and searchable on its website. Monetization of the collection is not seen as a substantial revenue generator in the long run, making it less of a short-term priority. To that end, the museum could benefit in non-monetary ways and indirectly generate revenue by using images under fair use to create educational videos and use those videos to increase visitor numbers. This would still fall under fair use as long as the museum is not selling the videos for profit. It provides wider public engagement which in turn creates a greater path to generating revenue. Ultimately, staff believe museum visitors will

not pay for products unless they are inspired. Staff must first inspire before visitors seek to create new revenue streams.

The San Diego Museum of Art (SDMA)

The San Diego Museum of Art houses over 16,000 works of art including works of Spanish and Italian masters, South Asian paintings, and 19th-20th-century American paintings and sculptures. Much of the museum's collection is available online through the museum's website, mobile application, and the Balboa Park Commons. Archival collections include photographs, letters, documents, and artist sketchbooks. The library's collection contains approximately 30,000 volumes, 15,000 bound volumes of art periodicals, more than 18,000 auction catalogs, and individual files on more than 30,000 artists (BPOC Collections Report, 2015, pg. 9). The library's catalog is also viewable on the museum's website. SDMA has more than 20,000 images ranging in size from small to high resolution (80+ MB). The museum's mission is to "inspire, educate, and cultivate curiosity through great works of art" (SDMA Mission & History, 2018).

The revenue model that the museum employs is the licensing and reproduction of images through the third-party vendor Bridgeman Images. The museum has also developed more indirect tactics using its digital content to generate revenue. These tactics do not necessarily follow an established revenue model. One such tactic is the use of push notifications on its mobile application. The museum is able to push images of items in the museum's store that are related to the objects visitors are viewing. Bridgeman Images provides a central resource for art and archival footage for reproduction. While the museum does not make any obvious advertisements for this service on its website, its collections can be easily searched on the Bridgeman website. Images can be purchased directly on the website as a reproduction or as a

license with high resolution and low-resolution options. In partnering with Bridgeman, the museum negotiated a contract where it receives just under half of the profits made from image sales, but there is little work on the museum's end. The museum's Registrar, James Gielow, has developed a systematic process for the image requests that come directly to the museum and internally within the museum. The development of the museum's model has been referenced from the Smithsonian's Rules & Regulations. Clients must first complete an online form that is sent directly to the Registrar. This form asks what object the image is needed for, and what the image will be used for (i.e. publication, scholarly research). The museum uses a fee structure that charges different rates depending on what the image will be used for. Making this process more economical, staff will piggyback projects using a hired professional photographer to shoot objects for several different requests, or even photograph the objects themselves. Staff have expressed an interest in creating an automated process on its website in the future, but are also interested in opening these images to the public. Digitization is an integrated function in the museum so much so that the Registrar has created a check list and system for processing images. When an image request comes in, the museum hires a professional photographer who then sends the images as TIFF files. These files follow a check list that includes adding the images to the museum's Archive drive, adding the image to the appropriate catalogue folder if applicable, adding the image to the Bridgeman new photography file, updating its Excel sheet with the metadata for each image, saving a JPEG version of the images to the museum's Image drive, and adding the JPEGs to EmbARK, its digital assets management system.

Revenue generated by the images purchased through Bridgeman is seen through quarterly statements. These quarterly statements haven shown profits ranging from \$800-\$6,000. The museum's Director of Marketing & Communications, Kari Kovach, explained the museum also

uses images to attract more viewers to both its social media accounts and website. In the summer of 2017, SDMA redesigned its website to make it more image oriented. In redesigning its website, the intention was to make it a place that felt like virtual visitors were visiting the museum, and making the collections more accessible to the public. Some non-monetary benefits seen from this revenue model is exposure, the museum's profile rising, and its collection becoming more well known to other institutions. One challenge the museum has faced is instances when the cost to photograph the object exceeds what the museum is charging. Copyright issues are not an obstacle for SDMA like it is for other institutions. Photographers hired by the museum sign a contract giving the museum ownership to the images. A few evaluations are conducted on the image licensing and reproduction model such as using the Bridgeman statements to track image sales. The museum also tracks the number of website visitors and physical visitors. However, the museum is unable to determine how many virtual visitors are becoming physical visitors because it lacks the software and technology to be able to track this information. The museum is interested in increasing revenue using its images and digital content, but staff believe that it is the museum's job as a cultural institution to provide scholarly research, and access to its collections.

San Diego Museum of Man and The Timken Museum of Art

The Museum of Man is home to over 550,000 cultural and anthropological artifacts about the human experience. These artifacts include textiles, ceramics, baskets, weapons, folk art, pottery shards, modified rocks, and even human remains. As of BPOC's collections survey, only 10% of the Museum of Man's artifact collection had been digitally captured (BPOC, 2016, pg. 9). The museum's archives hold over 100,000 photographs, over 300 linear feet of photographs, postcards, field notes, historical documents, maps, institutional publications, and film. Of this

collection, 30% has been digitized. 10% of the museum's images are available through the Balboa Park Commons (BPOC, 2016, pg. 9-10). The Museum of Man's mission is "inspiring human connections by exploring the human experience" (Museum of Man Mission, Vision, and Values, 2018). Selected images from the museum's collections can be viewed on the Balboa Park Commons. The museum's website provides a link to the Commons under its Ethnographic Collections section. Additional images of its collections can be found on the museum's social media pages such as Instagram and Facebook. The revenue model offered is the licensing and reproduction of images. Under general Collections, the Museum of Man provides links to its Media Reproduction services and fees. The museum offers 8-bit TIFF, RGB-formatted digital image files with permission for one-time use only, and the museum is credited. The fee for high-quality images for publication (300 dpi) is \$25. For images that are not available, photography can be arranged with the museum's staff photographer for an additional fee of \$75. Production services for photocopies and course packets are offered at a rate of \$.10 per page or per course packet. Licensing fees vary depending on printed size and color. Price per image of a size of one-half page or smaller in black and white is \$50 and in color is \$75. Price per image of a size larger than one-half page in black and white is \$75 and in color is \$100. Price per image for use in all aspects of product/edition in black and white is \$100 while color is \$150. Price per image for advertising, video projects, exhibitions, and online use is \$150 and up for black and white and color. An additional \$5 handling fee is also charged per order. A 20% discount is offered for scholarly and academic use. All fees are waived for images of Native American subjects requested by Native American groups and individuals. Requests for images are made by completing a photo reproduction form and then e-mailed to the collections department.

The Timken Museum of Art has more than 60 art works from its collection on display. Highlights from its collection have been digitized and made available on the institution's website and the Balboa Park Commons. These images also include a significant amount of metadata making them more accessible to researchers. Images of its collection can also be found on its social media pages such as Instagram. The museum's mission was not visible on its website, but the museum describes how its "scale provides visitors with an accessible cultural experience that allows for the discovery of the collection in an intimate setting. Visitors are treated to art without barriers, and with daily free admission, are encouraged to take their time and explore centuries of artistic genius" (Timken About the Museum, 2018). The revenue model that the Timken Museum offers is the licensing and reproduction of images. A Rights and Reproductions section under the museum's Art section can be found on the website. This rights and reproductions section lists the museum's rights and reproductions policy where permissions and copyright policies, and a fee schedule are listed. The process for requesting an image requires patrons to complete an image request form. This form is then e-mailed to the staff. Images are provided as a digital file at 300 dpi. Fees for images vary based on the intended use of the images. Color reproductions for Academic or Non-profit use are \$50 each. The price of color reproductions for commercial use is \$500 each. Rush service fees require an additional \$100 fee. For new images, photographs of 2D objects are \$200 each, and 3D objects are \$300 each. High resolution digital files for study or non-publication use is \$45 each. The museum also requires two copies of each publication, film, video, or other production that the reproduction appears in. While these institutions were not available for further analysis, they are offering and advertising image services like the other institutions that have been interviewed. For this reason, it is necessary to include them in this analysis. Interviews need to be completed in order to determine what evaluations, if any, are

conducted on these services, the benefits and challenges the institutions experience, and how these services are progressing.

Conclusion

This research into how Balboa Park institutions are using their digital content to generate revenue has revealed several key findings, questions, and areas that require more research. The first of the key findings agrees with parts of Simon Tanner's article, "For Whom the Image is Tolled – Museum Image Reproduction Rights and Charging Practices." Tanner argues that not developing a clear business plan and accounts for the costs of the service undermines the museum's efforts, museums are setting pricing on what other institutions are charging or rather what the market rate is, but not for what the actual cost of providing the service is (Tanner, pgs. 1-2). Most of the institutions interviewed do not have established or written policies and procedures regarding their revenue models. The San Diego Air & Space Museum was the only institution to reference image licensing and reproduction in their digital preservation and digitization policies, while the Museum of Photographic Arts briefly mentions in its digital strategy their intent to further develop such models in the future. The San Diego Museum of Art, did not mention these models being included in its policies, but it has developed and integrated image licensing and reproduction into their digitization process and utilizes checklists and established workflows as guides. On the other hand, the History Center's fee schedule has been developed based on the expenses needed to digitize and reproduce its images. If these institutions were to develop and implement well-articulated business plans and market these services, would it increase their revenue and make their models more sustainable? Would these institutions be more able to fund more digitization projects in the future? Whether institutions are selling images for profit, or using the service to support their collections and mission, a business plan

can help ensure the service is sustainable and at the very least have a neutral net income. Paired with evaluations of overhead expenses and projected revenue, institutions can effectively balance calculated costs against anticipated income to determine neutral net income or potential profits. Some questions remain on whether these models are successful, and how does each institution define success?

The second finding relates to the previously mentioned Andrew W. Mellon Foundation study. The study found that of the museums surveyed, none of the institutions who enforced their copyright ownership made a significant profit against their expenditures in the licensing and reproduction of their images. However, while the History Center enforces its copyright ownership more than the other institutions interviewed, it generates substantially more revenue every year. Whether this enforcement of copyright has impacted the high level of revenue is unclear. The History Center's collection is quite popular, and there is a lot of interest in the local region's history. The other institutions interviewed do not enforce copyright ownership at the same level, but also on average do not generate nearly as much revenue. Without knowing profits generated against expenditures, it is difficult to determine where Balboa Park institutions fit into this study. Would deeper evaluation of these models give institutions a better idea of how they can recoup the expenses that they invest into these revenue models? Are these models a priority to museums, and would they be able to invest more staff time and resources to understand how to make sure these models are profit neutral, or generating a substantial profit? Further research and evaluation of each individual institution's expenses and revenue generated, marketing efforts, the current market for consulting and research, and image licensing and reproduction services, and the institution's audience are recommended.

The third finding addresses the question of how these institutions are defining their success. The consistent response received during interviews was that the institution is not focused on monetizing its collections, but rather making them more accessible to the public. If an increase in revenue is not the only measure for an effective model, then what other measures are considered? As noted in the case studies, benefits ranged from seeing an increase in the institution's profile to an increase in the number of visits to the institution's website. These benefits could also be used to measure the effectiveness of a model. Further evaluation of website views and virtual visitor numbers and their correlation with access to digital assets is recommended to determine effectiveness. Increased marketing and awareness of these models would also increase the model's effectiveness. Some of the institutions interviewed do not have any mention of their image licensing and reproduction services. How do patrons know this service exists? Finally, these recommendations should be incorporated into an institution's digitization plan or digital strategy to ensure they are properly executed.

The fourth finding addresses the concerns given by Balboa Park Institutions on their involvement in the Balboa Park Commons and Lost in Balboa Park projects. Reiterating these concerns, they included: the lack of a written plan of what institutions were expected to contribute, and how the project would benefit them; an unclear and inconsistent understanding of what the actual project entailed, and general concern over how the digital assets would be managed and controlled. If BPOC has the ambition to become a central repository for the park's digital assets, it can achieve it. In order to accomplish this, BPOC needs to address these concerns. First and foremost, BPOC needs to acquire funding to get the projects moving again, and so that the Balboa Park Commons website can be revitalized. The website's current user interface is sluggish, and searching through the images on the Commons is tasking. In its current

state it is not a functional tool for researchers, or an exciting experience for visitor. If it isn't possible to obtain funding through Legler Benbough, then BPOC should seek out other grants as seed money to get the projects going again. In order to determine how much money would be needed, BPOC needs to develop a written plan for these projects detailing project objectives, summary of costs, required equipment and labor, hardware and technology requirements, and staff needs. This will also need to be broken down further into estimated costs each institution would need to contribute. Additionally, develop an action plan and workflows to depict how assets will migrate from contributing institutions to the centralized DAMS, and how these assets will be preserved and managed. What guidelines will BPOC choose to follow in selecting assets for the Commons? This action plan might also include how the Balboa Park Commons and Lost in Balboa Park tours will be used by visitors, how it could impact revenue and virtual and physical visitor numbers. Finally, the plan would need to address who is responsible for what. Who will be responsible for maintaining the Balboa Park Commons website? Who will be in charge of transferring digital assets to the central Digital Assets Management System, and who will be responsible for managing the security and integrity of those assets. A detailed action plan leaves little room for misunderstandings and presents clear boundaries on responsibilities.

The final finding aligns with the Andrew W. Mellon Foundation's conclusion that more foundations are making it a requirement for institutions to have open access to their collections in order to apply for their grants. Institutions like the San Diego Air & Space Museum for an example have taken advantage of this, and increased its revenue by applying for and receiving grants for making its images available on platforms like Flickr. As pointed out in the San Diego Air & Space Museum's case study, the institution has generated more revenue from these grants than from its image licensing and reproduction services. Furthermore, this study found that

“open access increased use and awareness of a museum’s collections, and helped to further research, educational and creative activities, and advance the museum’s mission” (Kapalis, 2016, pg. 3). This is supported by the findings from the case study on the Mingei International Museum where page views and image requests increased after the launch of the museum’s Web Kiosk making a number of its images available online. For Balboa Park institutions, the open access approach has been significantly influenced by the institution’s mission and philosophy and the culture within. The San Diego Museum of Art has also moved in this direction with the creation of its mobile application, and the revamp of its website to be more image oriented. This finding also presents a question that is difficult to answer. Can Balboa Park institutions translate virtual visitor numbers into physical visitor numbers? Do museums have the technology to be able to evaluate these numbers to draw conclusions? Further evaluations of virtual and physical numbers are recommended. Reviewing this data along with data gleaned from analytics tools provided by platforms like Google and Flickr can help institutions be better informed on how to cater to their audiences in terms of access and even image licensing and reproductions services. As Joaquin from MOPA mentioned in his interview, the audience must first be inspired before they will be willing to buy anything from the museum.

Works Cited

- Axiell, & Museums and the Web. (2017, February). *Digital Strategy Infographic - Survey Results 2017* [PDF]. alm.axiell.com/digitalstrategiesmuseums
- Balboa Park Online Collaborative. (2015). *Balboa Park Collections Inventory* [A survey of the content of the collections of Balboa Park Institutions].
- Bertacchini, E., & Morando, F. (2013). The Future of Museums in the Digital Age: New Models for Access to and Use of Digital Collections. *International Journal of Arts Management*, 15(2), 60-72. Retrieved December 8, 2017, from <http://eds.b.ebscohost.com.proxy1.library.jhu.edu/ehost/pdfviewer/pdfviewer?vid=3&sid=885125be-4547-460e-aeed-064553e50285%40sessionmgr104>
- Chute, J. (2011, April 17). Balboa Park expands into the digital age. Retrieved December 09, 2017, from <http://www.sandiegouniontribune.com/sdut-balboa-park-expands-into-the-digital-age-2011apr17-htmlstory.html>
- Ehrig-Burgess, K., Renga, A., Longacre, R., & Chiaretta Lavatelli, A. (n.d.). *Balboa Park Commons: Collaborative Digitization for an Open Public Resource*. Lecture presented at 2014 Digital Initiative Symposium, San Diego. Retrieved December 8, 2017, from <https://www.slideshare.net/aclavatelli/balboa-park-commons-a>
- Honeysett, N. (2017, December 8). *Lost in Balboa Park: a Unified Digital Strategy*. Lecture presented at American Alliance of Museums 2016 Annual Meeting and Museum Expo in Washington, D.C. Retrieved December 8, 2017, from <http://www.aam.webcast.guru/160526-3345-wvtcrs/>

- Institute of Museum and Library Services. (2015, July 06). Building an Online Commons for Balboa Park. Retrieved March 30, 2018, from <https://www.ims.gov/news-events/project-profiles/building-online-commons-balboa-park>
- Kapsalis, E. (2016, April 27). *The Impact of Open Access on Galleries, Libraries, Museums & Archives* (Rep.). Retrieved March 31, 2018, from Smithsonian Emerging Leaders Development Program website:
http://siarchives.si.edu/sites/default/files/pdfs/2016_03_10_OpenCollections_Public.pdf
- Maron, N. (2014, March). *A Guide to the Best Revenue Models and Funding Sources for your Digital Resources* [Scholarly project]. In JISC. Retrieved December 8, 2017, from https://www.jisc.ac.uk/sites/default/files/guide_to_revenue_models_for_digital_resources_0.pdf
- Michael Jenkins, & Balboa Park Online Collaborative. (2015). *Report on Collections Management, Digital Asset Management, and Library and Archives Systems* [A survey of the collections content and management of Balboa Park institutions].
- Pantalony, R. E., & Green, D. (2005). Sustaining Digitization Programs in the Post-New Economy: A Re-examination of E-commerce and Electronic Distribution. *Visual Resources Association Bulletin*, 32(2), 44-48.
- Primary Research, G. (2015). *Survey of Library & Museum Digitization Projects*. New York: Primary Research Group, Inc.
- Sully, P., Pescador, K., Ortiz, J., & Honeysett, N. (2017, December 8). *Introduction to Digital Asset Management Systems and the Balboa Park Commons*. Lecture presented at Western Museums Association 2014 Annual Meeting, Las Vegas. Retrieved December 8, 2017,

from <http://www.westmuse.org/introduction-digital-asset-management-systems-and-balboa-park-commons>

The New Media Consortium, & Balboa Park Online Collaborative. (2016). Horizon Report 2016 Museum Edition. Retrieved March 30, 2018, from http://interaccio.diba.cat/sites/interaccio.diba.cat/files/161026_horizon-report-museum.pdf

Appendix A

Annotated Bibliography of Resources Relevant to Digitization and Revenue Generation

There is a large body of literature written about how institutions are using their digital content to generate revenue. For the sake of brevity, this literature review will only contain a small selection of literature that was found to be the most useful in providing guidance on how to research the revenue generating programs of Balboa Park institutions, and what areas are lacking research. An appendix with a list of resources to consider for further reading will be provided below.

“The Future of Museums in the Digital Age: New Models for Access to and Use of Digital Collections” by Enrico Bertacchini and Federico Morando explores how museums are balancing access and use of their digital collections while implementing revenue generating programs. This article also provides an excellent overview into how technology is not only changing the museum’s role and mission, but how museums as producers are now leveraging their digital content. For the context of this paper, the article contributes a deeper understanding of the current state of revenue generating activities in cultural institutions.

“A Guide to the Best Revenue Models and Funding Sources for your Digital Resources” by Nancy Maron investigates sustainability and models of revenue generation in cultural institutions. It provides an in depth look into each type of revenue model, its pros and cons, and who the revenue model is best suited for. Example case studies are also presented for each revenue model. This article presents a very thorough understanding of the types of revenue

models used by cultural institutions. Its offering of real life case studies as examples for each model offers further understanding of where Balboa Park institutions models stand.

“Sustaining Digitization Programs in the Post-New Economy: A Re-examination of E-Commerce and Electronic Distribution” by Rina Pantalony and David Green explores the Canadian Heritage Information Network’s interest in assisting member museums by licensing their digital content to commercial markets. This paper also discusses the survey conducted by CHIN to evaluate the current commercial licensing practices utilized by institutions. This article helped to inform the challenges faced in implementing licensing programs, and questions asked during interviews.

“Survey of Library & Museum Digitization Projects” 2014 and 2016 editions by the Primary Research Group provide valuable information and insight into the current state of digitization projects and revenue generating programs. Survey questions included how much institutions were charging for image licensing and reproduction, what their profits were, and how were they prioritizing these programs. The article provides hard data to better inform the current state of digitization and image licensing services.

“Digital Strategy Trends” Survey Results 2017 by Axiell and Museums and the Web offers some insight into how museums are prioritizing their digital activities, how they are making their collections accessible, and whether or not they are investing in e-commerce projects.

“The Impact of Open Access on Galleries, Libraries, Museums & Archives by Effie Kapsalis explores the impact of open access to museums using digital collections for revenue generating

activities. This article is significant to this body of research because it provides hard data from a study conducted in determining the influence of open access models. There are examples of institutions in Balboa Park that approach open access in different ways, and it has impacted their activities in various ways.

“For whom the image tolled – museum image reproduction rights and charging practices” by Simon Tanner provides another look into the reality of cultural institutions participating in image licensing and reproduction services. Tanner also provides recommendations to institutions that are currently utilizing or considering implementing such services. This article is most aptly relevant to the subject of this research because it reflects the findings found in researching the Balboa Park institutions.

“Global Digitization Migration: The Survey of Library and Museum Digitization Projects 2011 Edition submitted by Carol Minton Morris provides data on digitization projects from around 100 libraries and museums around the world. Includes data on costs, equipment use, staffing, cataloging, marketing, and revenue generation.

Currently, there is little published literature specifically about Balboa Park institutions, their digital content, and digital initiatives generating revenue. The published and unpublished literature below is what has been reviewed.

“21 Websites and 26 Months” is the title of a presentation given at the 2012 Museums and the Web conference. An article summarizing this presentation is available on the Museums and the Web website. This presentation discusses one of Balboa Park Online Collaborative’s projects in

migrating Balboa Park institution websites to Drupal using shared costs and resources. This article presents a look into the history of Balboa Park Online Collaborative's work with Balboa Park institutions.

Balboa Park Online Collaborative's current CEO, Nik Honeysett presented at the 2016 AAM conference about BPOC's Lost in Balboa Park project. His presentation "Digital Sustainability, Engagement & Experience" details how the Lost in Balboa Park project would function by both engaging visitors and making them co-creators. This presentation offers historical context to the project.

A presentation called "Balboa Park Commons: Collaborative Digitization for an Open Public Resource" was presented by several museum professionals from institutions in Balboa Park at the 2014 Digital Initiatives Symposium. This presentation provides a look into the Balboa Park Commons online portal, and how the project served to create collaborative digitization with open public resources. This presentation provides historical context on both the Balboa Park Commons and Lost in Balboa Park projects.

At the Western Museums Association in 2014, several other professionals presented the introduction to Digital Asset Management Systems and the Balboa Park Commons. The Balboa Park Commons the collaborative digitization project that set the stage for the concept of the Lost in Balboa Park project. This presentation provides historical context and an in depth look into the importance of these projects.

“Custom Collections Content and Generous Interfaces” by Julia Falkowski examines how institutions are presenting their digital content and how it relates to Balboa Park Online Collaborative’s efforts with their Lost in Balboa Park project. This article provides historical context to the Lost in Balboa Park project as well as examines its place alongside how other institutions presenting their digital content to their audience.

“Balboa Park Expands into the Digital Age” by James Chute discusses Balboa Park Online Collaborative’s general digital influence on the institutions in Balboa Park. This article provides historical context of Balboa Park Online Collaborative as an organization and its role in supporting institutions in Balboa Park.

The Horizon Report – 2016 Museum Edition by The New Media Consortium and Balboa Park Online Collaborative provides a look into what the Lost in Balboa Park project is, and project’s goals. This report provides historical context and further detail on what the project was meant to accomplish.

Appendix B

Additional Reading Recommendations

Advocating for Visual Resources Management in Educational and Cultural Institutions. (2009).

Visual Resources Association Bulletin, 36(3), 57-76.

Axiell. (2016). *Digital Transformation in the Museum Industry* [Scholarly project]. In Axiell.

Retrieved December 8, 2017, from <http://alm.axiell.com/wp-content/uploads/2016/07/Axiell-ALM-Digitise-Museums-Report.pdf>

Bertacchini, E., & Morando, F. (2013). The Future of Museums in the Digital Age: New Models for Access to and Use of Digital Collections. *International Journal of Arts Management*, 15(2), 60-72. Retrieved December 8, 2017, from

<http://eds.b.ebscohost.com.proxy1.library.jhu.edu/ehost/pdfviewer/pdfviewer?vid=3&sid=885125be-4547-460e-aeed-064553e50285%40sessionmgr104>

Center for the Future of Museums. (2012, February 14). The Future of Funding. Retrieved April 01, 2018, from <http://futureofmuseums.aam-us.org/2012/02/future-of-funding.html?m=1>

Coblence, E., & Sabatier, V. (2014). Articulating Growth and Cultural Innovation in Art Museums. *International Studies Of Management & Organization*, 44(4), 9-25.
doi:10.2753/IMO0020-8825440401

De Laurentis, C. (2006). Digital Knowledge Exploitation: ICT, Memory Institutions and Innovation from Cultural Assets. *Journal Of Technology Transfer*, 31(1), 77-89.

Dowden, R., Mann, L., & Sayre, S. (2016, October 7). 2016 E-Commerce Summit. Retrieved December 10, 2017, from <https://www.cmog.org/article/2016-e-commerce-summit>

- Falkowski, J. (2016). Custom collections content and generous interfaces. Retrieved April 01, 2018, from <https://mw2016.museumsandtheweb.com/paper/custom-collections-content-and-generous-interfaces/>
- McCooley, E. (2017, April 26). CMS Boosts Museum's Online Traffic and Revenue. Retrieved December 07, 2017, from <http://www.baselinemag.com/enterprise-content-document-management/cms-boosts-museums-online-traffic-and-revenue.html>
- Morris, C. M. (2011, January 13). Global Digitization Migration: The Survey of Library and Museum Digitization Projects 2011 Edition. Retrieved December 10, 2017, from <http://duraspace.org/node/1565>
- Stogner, M. B. (2011). The Immersive Cultural Museum Experience -- Creating Context and Story with New Media Technology. *International Journal Of The Inclusive Museum*, 3(3), 117-130.
- Thomson, K., Purcell, K., & Rainie, L. (2013, January 03). Arts Organizations and Digital Technologies. Retrieved December 07, 2017, from <http://www.pewinternet.org/2013/01/04/arts-organizations-and-digital-technologies/>
- Wyncote Foundation. (2014, December). Like, Link, Share: How cultural institutions are embracing digital technology. Retrieved December 07, 2017, from <http://likelinkshare.org/>

Appendix C

Additional Resources for Balboa Park Institutions

Art Resource. (n.d.). Retrieved April 01, 2018, from

http://www.artres.com/C.aspx?VP3=CMS3&VF=ARTHO1_3_VForm&Flash=1

Bridgeman Images. (n.d.). Art, culture & history. Retrieved April 01, 2018, from

<http://www.bridgemanimages.com/en-GB/>

San Diego Air & Space Museum. (n.d.). San Diego Air & Space Museum - Balboa Park, San

Diego. Retrieved April 01, 2018, from <http://sandiegoairandspace.org/research/usage-reproduction>

San Diego History Center. (n.d.). Photo Store. Retrieved April 01, 2018, from

<https://photostore.sandiegohistory.org/>

San Diego History Center. (n.d.). Research Archives. Retrieved April 01, 2018, from

http://www.sandiegohistory.org/research_library/

San Diego Museum of Man. (n.d.). Fees for Rights and Reproductions. Retrieved April 01, 2018,

from <https://www.museumofman.org/collections/rights-and-reproductions/>

Timken Museum of Art. (n.d.). Rights & Reproductions. Retrieved April 01, 2018, from

<http://www.timkenmuseum.org/art/exhibitions//rights-reproductions/>